

What we claim is:

1. A method for managing situations of multiple events of different type in a telecommunications network with a ring topology protected by a traffic protection mechanism in which signals arranged as frames of bytes are transmitted and in which the transmitted frames comprise a pair of event signalling bytes, wherein the method further comprises the step of providing at least one additional pair of event signalling bytes in the transmitted frames, the first pair of event signalling bytes being used for signalling events of a first type, whereas the at least one additional pair of event signalling bytes being used for signalling events of a second type.

2. The method according to claim 1, wherein the first type of events comprises span-type events only and that the second type of events comprises ring events only, correspondingly.

3. The method according to claim 1, wherein the first type of events comprises ring-type events only and that the second type of events comprises span-type events only.

4. The method according to claim 1, wherein said telecommunications network is a transoceanic optical network comprising nodes connected through fiber spans having at least four fibers comprising working channels and protection channels.

5. A method for managing situations of multiple events of different type in a ring topology telecommunications network protected by a traffic protection mechanism, frame arranged signals travelling through said network, said network comprising:

- nodes or network elements; and
- fiber spans, said fiber spans connecting the network elements to form a ring,

the method comprising the step, carried out by the nodes, of receiving signal frames comprising first event signalling bytes and wherein it comprises the further step of receiving at least one additional pair of event signalling bytes, the first pair of event signalling bytes

being used for signalling events of a first type whereas the at least one additional pair of event signalling bytes being used for signalling events of a second type.

6. The method according to claim 5, wherein the steps of receiving signal frames comprising first event signalling bytes and at least one additional pair of event signalling bytes comprises the respective steps of receiving first event signalling bytes for signalling span events only and of receiving at least one additional pair of event signalling bytes for signalling ring events only.

7. The method according to claim 5, wherein the steps of receiving signal frames comprising first event signalling bytes and of receiving at least one additional pair of event signalling bytes comprise the respective steps of receiving first event signalling bytes for signalling ring events only and of receiving at least one additional pair of event signalling bytes for signalling span events only.

8. The method according to claim 5, wherein it comprises the additional step of processing the information carried by the first pair of event signalling bytes and by the at least one additional pair of event signalling bytes to perform operations designed, in case of multiple events of different type, to save as much traffic as possible.

9. The method according to claim 8, wherein the step of performing operations comprises the step of performing operations based on priority criteria between span and ring, and the processing step comprises the step of evaluating whether operations on the paths dictated by the less-priority request are feasible.

10. A signal frame structure for telecommunications comprising a first pair of bytes used for signalling events, wherein it further comprises at least one additional pair of bytes used for signalling events, the first pair of bytes being used for signalling events of a first type only whereas the at least one additional pair of bytes being used for signalling events of a second type only.

11. The frame structure according to claim 10, wherein the first pair of event signalling bytes is used for signalling span events only and the at least one additional pair of event signalling bytes is used for signalling ring events only.

12. The frame structure according to claim 10, wherein the first pair of event signalling bytes is used for signalling ring events only and the at least one additional pair of event signalling bytes is used for signalling span events only.

13. A network element for a telecommunications network with a ring topology protected by a traffic protection mechanism, signals arranged as frames travelling through said network, said network comprising:

- nodes or network elements; and
- fiber spans, said fibers spans connecting the network elements to form a ring, the network element comprising means for receiving signal frames comprising first event signalling bytes, the network element further comprising

means for receiving at least one additional pair of event signalling bytes, the first pair of event signalling bytes being used for signalling events of a first type whereas the at least one additional pair of event signalling bytes being used for signalling events of a second type.

14. A computer program comprising computer program code means adapted to perform all steps of the method according to any of claims 1 to 4 or 5 to 9 when said program is run on a computer.

15. A computer readable medium having a program recorded thereon, said computer readable medium comprising computer program code means adapted to perform all steps of the method according to any of claims 1 to 4 or 5 to 9 when said program is run on a computer.